

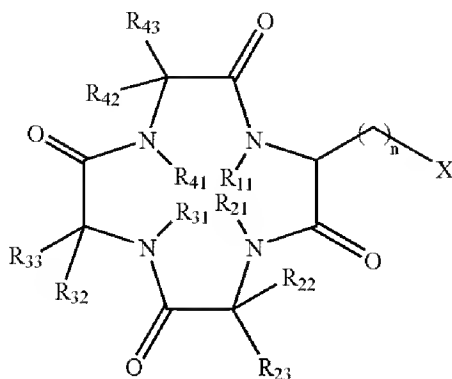
Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A compound represented by formula (1)

(1)



wherein

R₁₁, R₂₁, R₃₁, and R₄₁ independently ~~represent~~ are a hydrogen or methyl group;

R₂₂, R₂₃, R₃₂, R₃₃, R₄₂, and R₄₃ independently ~~represent~~ are any one of hydrogen, a linear alkyl group comprising 1 to 6 carbons, a linear alkyl group comprising 1 to 6 carbons to which a non-aromatic cyclic alkyl group or a substituted or unsubstituted aromatic ring is attached, a non-aromatic cyclic alkyl group, or a non-aromatic cyclic alkyl group to which a non-aromatic cyclic alkyl group or a substituted or unsubstituted aromatic ring is attached;

each of R₂₁ and R₂₂, R₂₂ and R₂₃, R₃₁ and R₃₂, R₃₂ and R₃₃, R₄₁ and R₄₂, and R₄₂ and R₄₃ may independently represent form a non-cyclic structure without bonding to each other, or ~~may independently represent~~ come together to form a cyclic structure by bonding to each other through

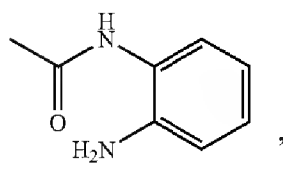
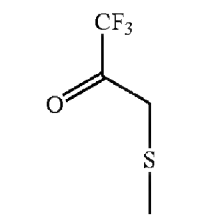
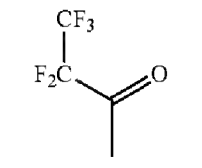
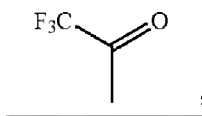
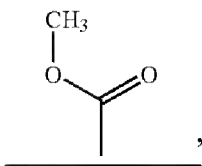
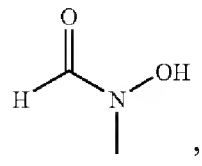
a linear alkylene group having a chain length of 1 to 5 carbons,

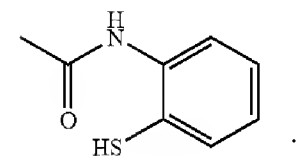
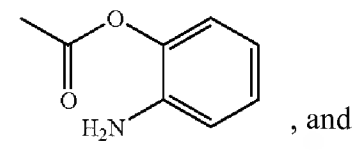
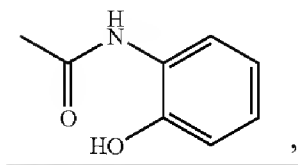
a linear alkylene chain having a chain length of 1 to 5 carbons and ~~carrying~~ having attached thereto a branched chain of ~~1~~ 3 to 6 carbon atoms, or

a linear alkylene chain having a chain length of 1 to 5 carbons and ~~carrying~~ having attached thereto a cyclic structure of 1 to 6 carbon atoms;

~~n can be selected from a range of numbers that enable the compound to have HDAC inhibitory activity~~ is an integer from 4 to 6; and

~~X represents a structural component having a structure that can coordinate with the zinc positioned at the active center of histone deacetylase~~ is selected from the group consisting of:

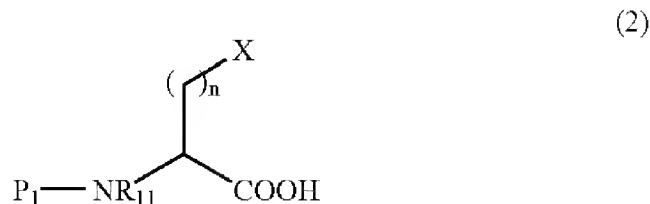




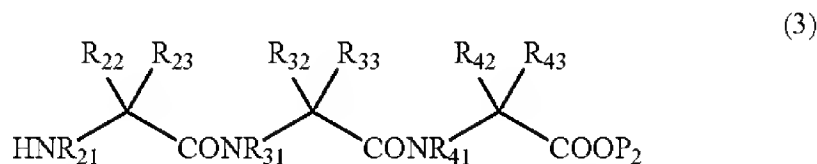
2. (Cancelled)
3. (Original) A histone deacetylase inhibitor comprising the compound of claim 1 as an active ingredient.
4. (Original) A tubulin deacetylase inhibitor comprising the compound of claim 1 as an active ingredient.
5. (Original) An apoptosis inducer comprising the compound of claim 1 as an active ingredient.
6. (Original) A differentiation inducer comprising the compound of claim 1 as an active ingredient.
7. (Original) An angiogenesis inhibitor comprising the compound of claim 1 as an active ingredient.
8. (Original) A cancer metastasis inhibitor comprising the compound of claim 1 as an active ingredient.
9. (Previously Presented) A pharmaceutical agent which comprises the compound of claim 1 as an active ingredient.

10. (Cancelled)

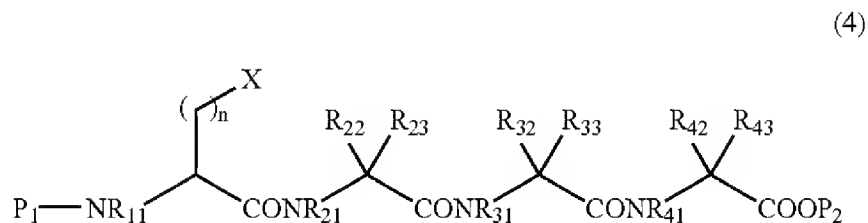
11. (Withdrawn – Currently Amended) A method for producing the compound of claim 1, wherein the method comprises reacting a compound represented by formula (2)



(wherein n, R₁₁, and X are as defined in ~~claims 1 and 2~~ claim 1, and P₁ represents an amino protecting group) with a compound represented by formula (3)

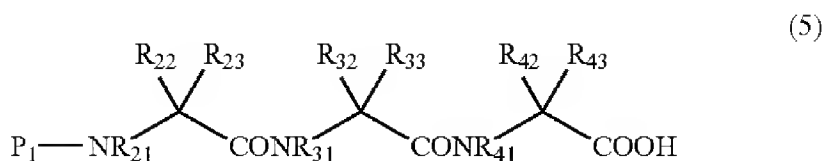


(wherein R₁₁, R₂₁, R₂₂, R₂₃, R₃₁, R₃₂, R₃₃, R₄₁, R₄₂, and R₄₃ are as defined in formula (1) of claim 1, and P₂ represents a carboxyl protecting group) in the presence of a peptide coupling agent to yield a compound represented by formula (4)

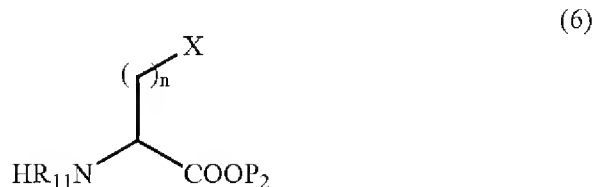


(wherein n, R₁₁, R₂₁, R₂₂, R₂₃, R₃₁, R₃₂, R₃₃, R₄₁, R₄₂, R₄₃, P₁, P₂, and X are defined above), then subjecting the compound represented by formula (4) to catalytic hydrogenation, acid treatment, or hydrolysis to remove P₁ and P₂, and subsequently, carrying out a cyclization reaction in the presence of a peptide coupling agent;

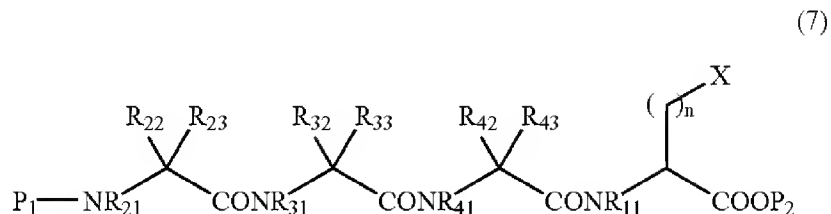
reacting a compound represented by formula (5)



(wherein R_{21} , R_{22} , R_{23} , R_{31} , R_{32} , R_{33} , R_{41} , R_{42} , R_{43} , and P_1 are as defined above) with a compound represented by formula (6)



(wherein n , R_{11} , P_2 , and X are as defined above) in the presence of a peptide coupling agent to yield a compound represented by formula (7)



(wherein n , R_{11} , R_{21} , R_{22} , R_{23} , R_{31} , R_{32} , R_{33} , R_{41} , R_{42} , R_{43} , P_1 , P_2 , and X are as defined above), then subjecting the compound represented by formula (7) to catalytic hydrogenation, acid treatment, fluoride anion treatment, or hydrolysis to remove P_1 and P_2 , and subsequently, carrying out a cyclization reaction in the presence of a peptide coupling agent; or

reacting a compound in which X of the cyclic tetrapeptide of formula (1) is a carboxyl group or a sulfhydryl group individually with trifluoroacetic anhydride, pentafluoropropanoic anhydride, or 1,1,1-trifluoro-3-bromoacetone to change substituent X into a different type of substituent.